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ABSTRACT

Findings of a study that examined the outcomes of longterm institutionalization of school reform are presented in this paper. Project Excellence, implemented in 1984 in a secondary school in Cochrane, Ontario, involved a comprehensive change in curriculum, instruction, and professional roles. An initial evaluation of the program, conducted during the 1988-89 school year, was based on document analysis; interviews with teachers and administrators; and surveys of teachers, parents, students, and support staff. A follow-up study, the focus of this paper, obtained data from interviews conducted with the former principal, the current principal and 2 vice principals, district office officials, 12 teachers, 5 students, and 2 parents. Findings indicate that in its seventh year of operation, structures for teacher participative decision-making and parental involvement had been dismantled and a top-down, laissez-faire administration was in place. Five lessons are highlighted. The case underscores the conclusion that governance structures must withstand the organizational cycles of institutionalization before outcomes of reform can be known. If governance structures lead to improvement, then the prospects for renewal are contingent upon their institutionalization. One figure is included. (18 references) (LMI)

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SEVEN YEARS LATER: REVISITING A RESTRUCTURED SCHOOL IN NORTHERN ONTARIO

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SEVEN YEARS LATER: REVISITING A RESTRUCTURED SCHOOL
IN NORTHERN ONTARIO

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The idea of "restructuring" schools and school systems has been a major focus for change in the education system since the mid-1980s. Restructuring advocates argue that fundamental changes are needed in the governance, organization, content, and processes of public schooling, in order to rectify current inequities in educational opportunity and outcomes, and in order to improve the quality and relevance of teaching and learning for all. Because of the recency of the restructuring "movement", empirical research on restructuring initiatives at the government, district, and school levels focuses on the initiation and early implementation phases of these changes (e.g., David, 1989). While some results are promising, critics note that restructuring initiatives often emphasize organizational changes (e.g., school-based management, school choice, change in accountability systems) without establishing links to improvement in curriculum, instruction, and the quality of learning (Murphy, Evertson, & Radnofsky, 1991; Newmann, 1991).

Whether current restructuring initiatives will have a transformational and lasting impact on the education system and outcomes remains to be seen. But do we really have to wait for these initiatives to run their course in order to theorize about possible and probable outcomes? Are there not lessons to be taken

from past experiences with and research on educational change which could be applied to current restructuring efforts? In particular, what do we know about the long term institutionalization and outcomes of change, and what relevance does that knowledge have for restructuring in today's schools?

We decided to explore this idea further in two ways. First, we took a look at past research on the institutionalization or continuation phase of planned change (e.g., Berman & McLaughlin, 1977; Fullan, 1991; Miles, 1983; Corbett et al, 1984). Second, we decided to revisit a secondary school that underwent a comprehensive change in curriculum, instruction and professional roles, seven years after the change was introduced, and four years after we conducted an evaluation of the implementation process and outcomes (Anderson, Stiegelbauer, Gérin-Lajoie, Cummins, & Partlow, 1990). Our intent in revisiting the school was to see how things had changed, or remained the same, what issues had arisen since our previous study concerning maintenance and/or renewal in the school, and how the experience of this school might contribute to the contemporary debate and practice of "restructuring".

Institutionalization

The dominant paradigm for research on planned educational change in the 1970s and early 1980s provided an "innovation-focussed" perspective on the implementation of single changes in curriculum and instruction (Fullan, 1985; Anderson, 1992). The change process was described in terms of three overlapping phases, commonly referred to as initiation (or mobilization),

implementation, and institutionalization (or continuation) (Berman & McLaughlin, 1977; Berman, 1981; Fullan and Pomfrett, 1977; Fullan 1991). Institutionalization signified a phase of change after an innovation was initially put into practice, during which it either was "built in" to ongoing use, organizational structures and routines, or was discontinued for one reason or another (e.g., inadequate training, dissatisfaction with results, neglect, staff turnover, removal of special funds and other supports, competing practices). The concept of institutionalization has been used to describe the status of continuation (or lack of continuation) of a change, as well as the organizational activities, processes, and conditions that contribute to institutionalization.

There is not much research on the institutionalization of innovations in schools and other organizations. That which does exist has been well reviewed before (e.g., Fullan, 1991; Miles, 1983; Berman, 1981). It will suffice here to highlight some key findings that are relevant to the current focus on restructuring schools and the education system. First, sustained implementation is unlikely to result unless participating teachers and administrators become skilled committed users of the innovation. The development of skill and commitment is highly dependent upon the quality of the innovation (practical, effective) and the quality and timing (ongoing) of assistance provided during implementation. Second, the prospects for institutionalization increase as the number of users of the change increases. Third, even successful implementation of new practices does not guarantee their long term continuation. This is particularly so when

implementation depends on external funding for operating costs, and when innovations are adopted for bureaucratic or opportunistic rather than problem solving motives. Fourth, continuation is highly susceptible to turnover in personnel resulting in the loss of key supporters in the administration and teaching staff. Fifth, strategic actions can be taken during implementation to improve the chances for institutionalization, such as anticipating staff turnover, providing training for new staff, and incorporating the innovation into standard operating procedures (e.g., job descriptions, regulations, scheduling, curriculum guides, budget lines). Sixth, innovations typically occur in a context of multiple priorities competing for the time, energy, and commitment of teachers and administrators. And seventh, in order to become institutionalized, a change must go through certain passages (e.g., shift to regular funding, written into regulations and job descriptions) and survive recurrent organizational cycles (e.g., budget, personnel change, replacement of materials) (Miles, 1983).

Of course, all this assumes that institutionalization is a desirable outcome of change. This premise has been questioned (Crandall, Eiseman, and Louis, 1986). In their classic formulation of levels of use, Hall and Loucks describe a developmental progression of innovation use behaviors, moving from non-use, to preparation, to mechanical beginning use, to routine use, and possibly to refined use and renewal (Hall & Loucks, 1977). People at the renewal level are proficient users of the innovation, but want to make major improvements either by substantially altering the way it is currently practiced, or by replacing it with another

innovation. Institutionalization is tantamount to routinization. Crandall, Eiseman, and Louis (1986) point out that institutionalization essentially preserves the status quo relative to the school system's traditional resistance to change, and that innovations may get institutionalized that are "suboptimal" in terms of their benefits for students and teachers. They argue that renewal rather than institutionalization is a more appropriate focus for school improvement, because it implies an organizational culture and context geared towards continuous learning and improvement, rather than routinization and resistance to change.

So what does all this have to do with restructuring? First, we need to distinguish the organizational changes associated with restructuring, such as school-based site management, school choice, new professional roles, and new accountability mechanisms, from the restructuring of curriculum and instruction. In a sense, the restructuring movement aims to create and institutionalize new organizational forms and processes that will enable continuous renewal of curriculum and instruction. There seems no reason to suppose, however, that organizational forms of restructuring are any less immune to the uncertainties of institutionalization than innovations in curriculum and instruction. While it is true that some organizational changes can be introduced by administrative fiat, that does not mean they will necessarily survive in the long run. District policies mandating school-based management or parental choice among schools, for example, will have to survive several cycles of administrative turnover at the district and school levels before claims of institutionalization of the new

governance structures can be made. The fact that organizational restructuring is more politically motivated from outside the school, than internally motivated by teachers and principals seeking solutions to particular pedagogical problems, may also make it difficult to generate the genuine commitment required for institutionalization. This situation will be exacerbated when organizational changes are adopted and implemented without clear links to restructuring of teaching and learning in the classroom. To the extent that organizational restructuring results in teachers and administrators taking on new or different leadership roles and responsibilities, we can expect their willingness and ability to assimilate the new behaviors to be influenced by the perceived payoffs of the change, and by the quality of assistance they get in learning to implement the new roles and tasks. Talk about restructuring seems to be all encompassing in terms of the scope of its impact on the lives of teachers and principals. At the level of the teacher, however, we really do not have a clear picture of the extent to which restructuring activities are the focus for change, or simply one among several priorities competing for their time, energy, and commitment. If the move towards genuine school-based site management goes forward with individual schools pursuing their own agendas, could their distinctiveness lead to isolation from meaningful dialogue with one another or useful assistance from supporting institutions (e.g., pre-service teacher education programs, curriculum materials developers).

These kinds of questions, drawn from past research on educational change, suggest that institutionalization of new

organizational forms associated with restructuring initiatives can not be taken from granted. Ultimately, the continuation of these structures may be highly dependent upon whether they do indeed lead to norms and practices of continuous learning, experimentation, refinement, and renewal in curriculum and instruction, and to improvement in the quality and outcomes of student learning. Such outcomes remain to be demonstrated on a consistent basis.

There is no necessary connection between the organizational changes being carried out under the banner of restructuring and the institutionalization of norms of continuous improvement in schools. It may well be that restructuring initiatives are initially accompanied by or result in substantial classroom focussed innovation activity. We know from past research that major changes in curriculum and instruction often take two or three years to put into practice (Fullan, 1991; Huberman & Miles, 1984). Assuming that these early efforts succeed (a major assumption since organizational restructuring does not necessarily prepare people with the skills to manage change), we must then look to see how open or impervious the participating teachers are to further change, before rendering judgement on the degree of institutionalization of norms of continuous improvement. In sum, existing research on the institutionalization of change in schools and classrooms suggests that restructuring has a long and uncertain way to go before we can confidently say that the new structures are here to stay.

Project Excellence: A Case Study

Description of the Project. Project Excellence at Ecole Secondaire Cochrane High School (E.S.C.H.S.) in Cochrane, Ontario, is an individually paced modularized system of instruction.¹ Within this system students work in subject area resource centres and consult with teachers as needed. The curriculum consists of locally developed 20 unit learning guides in every subject and course. Students organize their own timetables and progress at their own rate. They are required to successfully complete each unit before moving on to the next, and must complete all units in a course to earn a credit. Teachers function as developers of course units, as consultants for particular courses, and as advisors to cross-graded groups of 12 to 15 students. They spend about three hours a day in a resource centre consulting with students and marking, an hour as teacher advisors, an hour on curriculum development, and an hour for small group instruction or extra-curricular work. Teachers may offer 45 minute to 1 hour small group "seminars" related to particular units for interested students. Teacher advisors monitor student progress, intervene with assistance when necessary, and consult with parents of their advisees on a regular basis.

¹ The project is modelled on a similar system at Bishop Carroll High School in Calgary, Alberta, and is derived from the ideas of Lloyd J. Trump (197).

The Context. Cochrane is a small (pop. 4500) midnorthern Ontario town. Mining, lumber, the railways, public services, farming, and tourism are the major sources of employment. French and English are the primary languages in common use. There is also a substantial Native Canadian population in the area. The region is served by a public school board (Cochrane Iroquois Falls Board of Education) and a Roman Catholic separate school board.³ École Secondaire Cochrane High School (E.S.C.H.S.) is one of two secondary schools in the public school board. The other school and the board office are located in Iroquois Falls, about 40 miles from Cochrane.

E.S.C.H.S. is a comprehensive high school offering academic and vocational courses at three levels of difficulty⁴ in both English and in French.⁴ In September, 1991, the school had an enrolment of 350 students, down from 400 in September 1987 (the year we conducted our first study). The school shares facilities and competes for students with a French language high school run

³ Ontario has two publicly funded school systems. One is a non-sectarian "public" school system. The other is a "separate" Catholic school system. Ratepayers declare which of the two school systems they wish their taxes to support.

⁴ In the Province of Ontario, secondary school courses are offered at Advanced, General, and Basic levels of difficulty. Advanced courses prepare students for University entrance. General courses prepare students for community college or the workplace. Basic courses are for students who wish to go directly to work upon completion of high school.

⁴ While English is the majority language of instruction in the province of Ontario, boards of education can create French language schools or instructional units within schools where sufficient numbers of French speaking pupils reside and the parents petition to have their children educated in French.

by the Roman Catholic separate school board. During the 1991/92 school year, E.S.C.H.S. had 25 teachers, two teacher/vice principals (one English, one French) and one principal. Support staff included 11 resource centre assistants, six secretaries and an audio-visual coordinator.

The Research. At the request of the board, the Ontario Ministry of Education contracted an external evaluation of Project Excellence during its third year of implementation. We carried out this case study evaluation during the 1988/89 school year (Anderson, Stiegelbauer, Gérin-Lajoie, Cummins, & Partlow, 1990). The initial study included both qualitative and quantitative process and outcome data from teachers, students, parents, and administrators involved with implementation of the project. Data sources included the following: Levels of Use interviews and Stages of Concern Questionnaires¹ with all teachers (N=32); implementation process and opinions interviews with a teacher sample (N=22) and all administrators (N=4); implementation role and opinion survey of all students (N=293) and parents (N=184); implementation experience interviews with a student sample (N=39) and parents (N=15); implementation role and experience interviews with all support staff (N=12); pre/post analysis of student marks and progress towards graduation; and content analysis of curriculum

¹ We employed several components and procedures from the Concerns Based Adoption Model (CBAM) in the original study, including Levels of Use, Stages of Concern, and Innovation Configurations (see Hall & Hord, 1987, for complete explanation of the CBAM framework and procedures).

in relation to provincial guidelines.

We returned in early 1992 for two days to determine issues in continuation for the school, to assess "what happened", and to look at the long term success of the Project. As the goal of the visit was more an informal check on the progress of the innovation, participant interviews were designed based on pre-visit phone calls with the administration and issues present in the literature on change and restructuring. Followup interviews were conducted with the former principal (now principal for pilot projects in other schools), the current principal and two vice principals, district office officials, a sample of twelve teachers, five students, and two parents (one board member).

History of Early Implementation. In January 1984 the administration and teachers at E.S.C.H.S. were having a difficult time maintaining courses due to declining enrolment, staff cuts, and provincial policy changes, such as funding for secondary school education in the separate schools system.* Past "solutions", such as cutting or combining low enrolment courses were regarded as educationally unsound and unfair to the majority of students. The administration and teachers were looking for alternatives. In this context of "readiness for change", a new principal was appointed

* Prior to 1984 the province only funded the separate school system to grade 10. At that point students either transferred to the public school system or completed their secondary schooling in private Catholic schools. The extension of secondary school funding to the separate school boards in 1984 created a major enrolment drop in the public system, and many schools were sold off to the separate boards.

in the fall of 1984. The principal was aware of Bishop Carroll High School in Calgary, Alberta, which had been operating on the Trump model of education for a dozen years. A team of school administrators, teachers, and board officials visited Bishop Carroll in early January 1985. Based on an enthusiastic report from this team, the staff at E.S.C.H.S. and the board voted to adopt the system for E.S.C.H.S. for a five year trial, and to prepare for full scale implementation in September 1985.

The preparation phase engaged the staff in a challenging effort to get the curriculum and building in place in seven months. The teachers were committed to having at least 10 units ready in all courses (over 300) by September. Responsibility for curriculum development was decentralized to the departments. Most courses were prepared by individual teachers. During the spring teams from E.S.C.H.S. made two more trips to consult with staff at Bishop Carroll. They collected sample units, recordkeeping forms, took pictures of the resource centres, and consulted with their colleagues about the in's and out's of the system. A team from Bishop Carroll came to Cochrane, as well, to consult with the departments and to help inservice the staff about the teacher advisor role. Over the summer, a secretarial pool was set up in the gym to assist with typing and duplication of the units. The resource centre assistants were also hired. Classroom walls came down and the interior of the school was reconstructed into 11 subject area resource centres. The resource centres had tables, chairs, desks, and study carrels for students, desks for teachers, shelves to store course units, and a counter where the resource

assistants could check out units and associated materials.

School opened in September 1985 under the new system, now referred to as Project Excellence. Teachers found the first year challenging, exciting, and unpredictable. Most found it stressful and frustrating at times, as well. As subject teachers, they were busy finishing initial curriculum writing, and keeping up with marking. Many began revising courses based on initial results at the same time. The biggest change for teachers was becoming a teacher advisor (TA). The major concerns of TAs in the first year were figuring out how to motivate and help students adjust to the system, building relationships with their advisees, and communicating with parents. A team from Bishop Carroll came in the fall to observe and give feedback on implementation status and concerns. There was no formal inservice that year. Staff development time was spent discussing, sharing, and problem solving about the TA role, curriculum, recordkeeping, student progress, and discipline. In addition to weekly department head meetings and monthly staff meetings, the administration scheduled half-day bi-weekly "Project Effectiveness" meetings for each department. The departments used this time for decision making about resource centre organization, recordkeeping and grading, and curriculum. The administration and board had to weather considerable criticism from the community the first year, due to the difficulties students and teachers experienced settling into the new system, and the lack of an alternative for students who preferred a regular high school. The principal organized and held regular meetings with a Parent Advisory Committee.

Both as teachers and as TAs, the staff found year two less stressful than the first. Energy shifted from initial curriculum development to curriculum revision (e.g., adjusting unit length and difficulty, incorporating alternative ways of completing units). Students were growing more comfortable with the system, though teachers continued to search for ways to motivate and assist. The staff began introducing changes in the system, such as timetabled periods for entering Grade 9s to be together in resource centres until they got comfortable with the system, a special study skills room for students having difficulty organizing their time and work, and a week long orientation program for incoming students the following year. Some social workers gave an inservice that year to help teachers develop their counseling and interviewing skills in the TA role. The administration also brought in a curriculum consultant for an inservice on concept development. The remaining staff development time was devoted to inhouse sharing and problem solving pertaining to curriculum refinement and assisting students with study skills. The departmental Project Effectiveness Meetings were replaced by monthly "Project Renewal Meetings", in which inter-departmental groups of teachers met to problem solve on issues of curriculum improvement and the role of teacher advisors. In year two, the TAs settled into communication routines with parents of their advisees. The board responded to continuing parent concerns by providing a bus to transport pupils opting out of Project Excellence to the other secondary school, 40 miles away. The school Parent Advisory Committee remained active.

Most teachers reported no major changes in their teacher and

TA roles during year three. As teachers, their concerns continued to focus on modifying courses and teaching to improve student outcomes. In the TA role, teachers had settled into comfortable routines, though many continued experimenting or looking for better ways of working with their advisees. The administration introduced a system whereby groups of teacher advisors met with each vice principal every two weeks to collectively review student progress and develop solutions for students falling behind. The Project Renewal Meetings were discontinued, and project management proceeded under the traditional structure of administrative team, department head meetings, department meetings, and staff meetings. Many students and parents remained skeptical of the Project (on our surveys 50% of each group said they would prefer to return to the traditional system), though public opposition to Project Excellence had subsided. The Parent Advisory Committee continued and a Graduate Parent Advisory Committee was created to look into the progress of students graduating from Project Excellence who went on to university or college. The major new initiative during year three was an attempt by the principal to begin looking into ways to address the particular needs of an influx of Native students (about 30) that resulted from the creation of a new reserve in the area. An inservice day was held at a local Native centre and a Native Parent Advisory Committee was created.

Evaluation of Early Implementation. Our third year evaluation of Project Excellence looked at progress in implementing the system, participant opinions, and student outcomes. We concluded

that the system has been successfully put into place with a reasonably high degree of fidelity to the original vision. Project Excellence required substantial changes for teachers in terms of grouping, timing and pacing of instruction, individualization of instruction, methodologies, interaction with students, preparation, marking, discipline, and relationships with parents. By year three teachers reported that they were comfortable with their new roles, and had no particular desire to return to the traditional system. Stages of Concern data revealed that teachers as a whole had progressed in their roles to concerns about student impact. Personal and management concerns common to early or unresolved implementation were uniformly low. Levels of Use data indicated that the majority of teachers were at a routine or refinement levels of use in both the subject consultant and teacher advisor components of their role.

Teacher satisfaction with Project Excellence was based partly on the perceived benefits and outcomes for students. The original goal of maintaining courses in a context of declining enrolment was achieved. During the 1987/88 school year two thirds of the courses had an enrolment of less than 10. We compared students average marks in each subject area and grade level for the three years prior to the project to student marks at the end of year two. Regardless of subject, level of difficulty, or grade level, the average marks increased about 15 to 20 percentage points, and the variance in marks decreased by 8 to 14 standard deviation units in virtually all subject areas. These achievement outcomes were consistent with what one would expect in a learning system where

assignments are repeated until a passing grade is obtained, and students proceed at their own rate. The annual drop out rate fell from about 13% in the three years prior to the project (consistent with provincial averages) to 7.5% and 9% in the two first years of implementation. The major concern identified was the difficulty that students were having accumulating credits at a sufficient rate to graduate in four years. Students varied in how quickly and easily they settled into the new system of learning. On the whole, the evidence (teacher interviews, student survey and interviews, parent interviews) indicated that students were learning to accept greater responsibility for their own learning and to become more self-directed learners. Discipline problems in terms of confrontation with teachers disappeared. The student and parent survey indicated that 50% in each group preferred Project Excellence to the traditional system.

In sum, our overall evaluation of implementation progress and outcomes was generally positive, though we did identify specific concerns and needs for improvement around a wide variety of issues -- e.g., student progress towards graduation, need for more interactive learning involving small groups of students, needs for continuing curriculum refinement, maintaining communication between teachers and parents, more inservice opportunities for teachers. We also recommended that the board adopt a policy enabling students throughout the board to attend either Project Excellence or the board's other high school, and to provide transportation both ways.

At this time we concluded that the potential for institutionalization of Project Excellence were high. This

conclusion was based on an assessment of the presence of several indicators that signal the institutionalization of an innovation (Huberman & Miles, 1984), as reported in Figure 1.

The Followup Story. We returned for a brief visit early in 1992 to investigate the continuing status of Project Excellence.

The Program has materialized as we hoped. There was ownership by the staff quickly. They picked it up and were asking how they can improve it for the students very fast. We are getting proofs from the students in university -- they say time management and a sense of how to learn has helped them. As we got into it we saw it was the way to go. In the past we were paying lip service to helping students learn. Now we are teaching students how to learn for themselves. And we are saving programs we would have had to cut in the traditional system.

Most of the staff believe firmly that this is the right direction. We are now fine tuning specific things. It would be tough to go back to the classroom.

ESCHS Administration, 1992

The new system of education embodied in Project Excellence had become routinized and institutionalized. The project had dropped its "special" title and pilot status, and had been accepted by the administration, teachers, students, parents, and the Ministry of Education as a "normal", albeit different, school.

The teachers remained firmly convinced of the benefits of Project Excellence for students in terms of the quantity and quality of learning, and the development of students sense of responsibility and independent learning skills. Their opinions were reinforced by the reported success of E.S.C.H.S. graduates at university or community colleges (by this time three cohorts of Grade 9 students had completed their entire high school career in the Project Excellence system).

The kids and parents have more confidence in our system. The kids have developed work habits that have proven more effective. We have had good results from kids going to college. Parents have come to accept the system and now wonder if their child can handle it rather than whether it is a bad system. Parents tend to ask for suggestions as to how they can help out. There is more of a consultation process now and less blaming the system if the student is having problems.

ESCHS Teacher Comment. 1992

Early concerns about the speed of student progress towards graduation were now resolved, though the teachers recognized that constant attention to student progress through the teacher advisor system was critical to the system.

Teachers reported little change in their teacher advisor and subject teacher roles. They remained strongly committed to the teacher advisor role, and were more comfortable with their skills in working with students as advisors. Individually, they continued looking for more effective ways of motivating their students, keeping them on task in terms of unit completion goals.

My role as a teacher advisor hasn't really changed. I am getting more accustomed to it. I try to get the students to become more self disciplined and self directed. There is still a struggle with exactly what to do as a TA, how to get kids motivated. We are always trying to find a new angle on that.

ESCHS Teacher Comment. 1992

While acknowledging the continuing presence of a small number of students for whom the system was not working, teachers seemed reconciled to the belief that no system of education would work for all students.

As subject teachers, the major ongoing concern was time for routine curriculum revision and development.

As a subject teacher things are pretty stable. I have to keep revising courses. With the new (provincial curriculum) guidelines, destreaming and so on, some of the courses will have to be completely rewritten. I'm using fewer seminars than when we started. This isn't true of every department. That's partly practical -- in math and English they have a lot of seminars. But I don't want to overly crowd the students' time.

ESCHS Teacher Comment. 1992

Needs for curriculum revision were now being determined individually by each teacher or department head in relation to their assigned courses. Most teachers preferred to seek blocks of time on professional development days or during certain months for curriculum work, rather than on a daily basis as per the original model of the teacher workday. Few expressed much enthusiasm about pending reforms in the Provincial curriculum and what that might entail for curriculum revision over the next few years.

In our previous evaluation, teachers were ambivalent about the purpose and frequency of small group "seminars", fearing that they could lead to backsliding into a more teacher centred approach to instruction. This uncertainty continued, as teachers in some subjects or courses were reportedly holding compulsory seminars on a regular basis and delivering traditional lessons to small groups of students. Other teachers viewed this as somewhat contrary to the school philosophy emphasizing student responsibility for their own learning, developing students' disposition and skills for independent learning, and students progressing at their own rate.

Students and parents now accepted the school as the norm. While they recognized that it was different from other schools, they were not bothered by this difference. Indeed, the students interviewed remarked on what it could do for them (e.g., developing skills and responsibility for own learning), rather than what it was not doing in comparison to a traditional school.

I like going here I tell my friends about it in Iroquois Falls. They think the program is weird. But I think they envy my freedom.

ESCHS Student Comment. 1992

The feedback from students who had successfully graduated from the system and who were succeeding in post-secondary studies had a positive impact on students and parents attitudes towards the school. Implementation of our prior recommendation to open admission to students the board's other high school also helped ameliorate community concerns. About 20-30 students were being bussed in from the other high school community (and vice-versa).

While the system as a whole was stablized, the school context continued to change with varying implications for continuation. The school was still coping with fluxuating enrolment, staff cuts, and funding for new initiatives.

We have 25 teachers this year. This means we are close to the bone and enrolment is going up. There have been budget cuts which means we will have to cut subjects and courses. That is the very reason we started this program, to avoid that. It will be hard to rebuild what we lose. I've had to become more involved in some subject areas that I am not as familiar with just to maintain some quality.

ESCHS Teacher Comment, 1992

The loss of teachers created a diminishing pool of subject expertise. Increasingly, teachers were being asked to accept responsibility for courses outside their major subject specialties, in order to avoid courses being dropped from the calendar. Declining enrolment and staff loss impacted most heavily on the French language instructional unit of the school. While the enrolment and staffing issues posed problems for maintaining courses, they were not threatening continuation of the system. Given the human and financial resources available, the staff remained firmly convinced of the advantages of the system over the traditional system in terms of the variety, delivery, and quality

of courses provided, and the quality of student learning obtained.

The project weathered several changes in leadership in the four years since our previous study. One vice principal left and was replaced from within. The original principal was absent due to illness for much of the year following our evaluation. The next year he traded places with the board's other high school principal, so they could gain a better understanding of each others' context. In the fall of 1991, the principal was seconded by the board to manage several Project Excellence dissemination projects (explained below). One of the vice-principals was appointed principal. That the program remained stable despite the changes in administration was a strong indicator of the degree of institutionalization.

In our third year evaluation of Project Excellence, we used a set of indicators developed by Huberman and Miles (1984) to analyze institutionalization of the programmatic components of the system. We judged the potential for institutionalization as high, despite unresolved concerns about the status of seminars, lack of support from many parents and students, perceived lack of relevant professional development, uncertainty about the consequences of future personnel turnover, and the absence of any strategy for training new staff to work in the system.

Figure 1 compares our early assessment with our analysis of institutionalization in the seventh year of implementation. The prospects for continuation remained high, though some issues remained unresolved. The use of small group seminars continued to border on the fringes of the traditional approach to instruction. In a sense, however, latitude for "competing practices" to co-exist

in the form of varying approaches to seminars became integrated into the system (much the same as latitude for alternative teaching styles in a traditional classroom setting exists in most schools). The staff continued to perceive a lack of relevant teacher training and professional development for the teacher role and the approach to curriculum and instruction used in the school. The impending retirement of several teachers within the coming five years, however, posed the greatest threat to continuation of the system. All but one of the current staff participated in the creation of Project Excellence. The school was facing a possible crisis in the not too distant future in terms of attracting replacement teachers, training them to work in this system, and enticing them to stay.

While the programmatic components of the project remained true to the original design, several innovative "management" components of the project were abandoned. During the initial three years of Project Excellence, there was a genuine sharing of responsibility and power between the administration and teachers for designing and developing the new system, identifying and solving the early implementation problems, and creating adaptations to meet locally identified needs. This occurred through regularly scheduled department head, department, and staff meetings, and through the specially designed departmental "Project Effectiveness Meetings", cross-departmental "Project Renewal Meetings", and teacher advisor/vice principal meetings. In the end, the special management strategies were used only as temporary structures to help put the system into practice. They were not incorporated into the ongoing system of managing the school.

At the time of our followup, the school had reverted to traditional forms of management -- the administrative team and periodic department head, department, and staff meetings (the VP/TA meetings were about to be reinstated by the new principal). The shift in management strategies was correlated to other developments in the evolution of the school. First, was a lack of staff consensus, commitment, and involvement in some recent initiatives undertaken by the administration (e.g., a "Native Centre" staffed by a Native counselor; systematic dissemination of Project Excellence to other interested schools). Second, was a feeling that the administration had become more authoritarian and less sensitive to the teachers' sense of needs and directions for the school in the last couple of years. And third, the departments and even teachers within departments had become increasingly balkanized and isolated from one another. Teachers said that they were less aware of what their colleagues were doing with curriculum and as teacher advisors. There were rumours of some teachers going too far in their own ways in the teacher advisor role. Overall, there was little sense of consensus on current needs and future directions for the school among the staff.

The innovations in parent participation in school governance also disappeared over the years. The Parent Advisory Committee, Graduate Parent Advisory Committee, and Native Parent Advisory Committees had all disbanded since our earlier study. Individual contact with parent through the teacher advisor system was institutionalized, but organized input from parents was gone.

In summary, the programmatic components of Project Excellence

appeared to be successfully institutionalized after seven years of implementation. Remaining uncertainties centred on replacement of retiring staff and on the recruitment, training, and retention of new staff. Management structures that enabled teacher and parent collaboration and participation in decision making about the initial restructuring effort were discontinued.

On the Verge of Renewal. There was more to the followup story, however, than institutionalization. The school had reached a critical juncture in terms of its future. Administrator and staff concerns about future continuation were embedded in a debate about refinement and renewal in the school.

My opinion is that we have lost a bit of momentum. We need to focus on a clear direction for the school. the first two years of the project you knew exactly where you were going and you were just trying to get there. But you go through that stage and out the other side. We are sort of on the tail end of the exhaustion stage and the beginning of what should be a renewal stage. If you are entering a renewal stage you have to have a clear direction, chosen by all of us. Let's make the school like this. Not just drifting. If you are just maintaining what you have, you lose your drive. You have to refocus.

RSCHS Teacher Comment, 1992

Routinization of the school was accompanied by feelings of complacency and lack of continued professional growth. The administration, and some teachers, talked about the need for new challenges. People had different views, however, on change and the future of the school.

One view focussed on refinement of the existing system through renewed innovation in curriculum, instruction, and counseling in response to teachers' perceptions of need, and in response to changes in provincial curriculum policies. Teachers were already

experimenting individually or in small groups with different ideas, though none of these ideas had coalesced into consensus for a schoolwide initiative. Possibilities included curriculum integration through the development of "cross-over units" involving more than one subject area, introduction of cooperative group learning strategies, greater utilization of technology as a learning tool, greater emphasis on learning activities to promote higher order thinking and problem solving, renewed efforts to find more effective ways to motivate students individually through advising and career counseling, and a focus on the groups of students who do not progress in the system. Expected changes in provincial curriculum policy (elimination of "streaming" into Advanced, General, or Basic level courses in Grade 9) were a disincentive to curriculum revision at the present (Why rewrite courses now if you'll have to rewrite them again in two or three years?). Teachers were taking a 'wait and see' perspective on the curriculum implications of provincial curriculum restructuring.

Notwithstanding the multiple possibilities for refinement, there was no consensus at the administrative and staff level on a particular focus for internal improvement. This was related to a number of factors. The conviction that most students were performing as well or better than they would in a traditional system, were developing the dispositions and skills for independent learning, and were succeeding in post-secondary studies certainly diminished the sense of urgency and consensus for change. Teachers were no longer deliberating collaboratively on school needs, goals, and solutions to mutually perceived problems. This reduced the

potential for consensus building around particular concerns and initiatives, and increased teacher dependency on the administration for direction for improvement and change. The administration, however, was split on future directions for the school. Finally, the teachers felt unsupported by and isolated from the institutional context. They felt they had nowhere to go for ideas and help in solving the particular problems of teaching and learning inherent in the Project Excellence system of education. Many regarded existing professional development activities as irrelevant to their context. They yearned for contact with teachers in other schools implementing similar systems of education, but such schools were largely non-existent or far away.

The new school administration favored a refinement view of the future of the school. Supplementary to the focus on internal improvement, they were trying to think of strategies to recruit and train future teachers to replace those who would soon be retiring (e.g., hiring new teachers to work in Summer School in preparation for assuming full time duties in the fall). The internal refinement view was at odds with an alternative vision developed and supported by the previous principal (who led the staff through the implementation of Project Excellence), central office officials and the board. The alternative vision focussed on renewal through dissemination of the system to other schools.

Since the inception of Project Excellence, E.S.C.H.S. has accommodated about 20 visits a year by groups of teachers, administrators, and officials from other schools and boards interested in learning about the school. A few schools have

subsequently undertaken implementation of the Project Excellence model. E.S.C.H.S. staff were occasionally invited to these schools to advise and coach, though usually on a one shot basis. Within the board, a more sustained attempt has been made to export the model to some small schools for students with special needs (e.g., emotionally disturbed, in correctional facilities). E.S.C.H.S. staff have been involved in teacher training, unit development, and assisting teaching staff as an extension or add-on to their regular teaching and counseling duties. While expenses have been paid, there has been no substantial compensation to the school in time, money, or shared expertise for assistance to other schools inside or outside the board. Moreover, the staff have always felt uncomfortable about leaving their teacher advisor groups for any length of time, about denying access to consultative help in their subject areas when students need it, and about giving away the learning guides they struggled so long to develop.

During the spring and summer of 1991, a dissemination project of greater magnitude developed. A Cree community in Attawapiskat on the James Bay approached the principal, superintendent, and board for help in setting up a Project Excellence type school. At that time children were being sent away for secondary school to regional centres like Timmins and North Bay, Ontario. The students often developed serious social problems, and typically dropped out. Project Excellence was seen as a model that could be delivered locally and adapted to the Native way of life (e.g., allowing for continuous entry and exist so students can participate in hunts and local community affairs). The original plan was to begin with

Grade 9, three teachers, and 15 students, and then to add a grade and more students and teachers each year. E.S.C.H.S. was asked to send staff to Attawapiskat to share learning guides and recordkeeping procedures, to train and coach the teachers, to help develop the school centres, and to assist with problem solving as needs arose. It was anticipated that 26 trips by personnel from E.S.C.H.S. would be required, including 10 trips by administrators, and two trips from each of the eight departments of E.S.C.H.S. The Attawapiskat community obtained a grant to help pay for the development of the school.

A decision was made over the summer by the principal, superintendents, and trustees to proceed with the Attawapiskat Project. The board saw it as a prototype for dissemination of Project Excellence to other Native communities in the North, and as a possible source of revenue. The principal and superintendents saw it as a context for professional growth and renewal for E.S.C.H.S. staff, both in terms of taking leadership roles in disseminating the system to others, and in terms of the challenge of figuring out how to adapt the model to other settings. They also saw it as a way to begin developing a league of Project Excellence type schools in Northern Ontario, thereby creating an accessible community of educators with whom to share ideas and expertise relevant to this model of education. Finally, they saw it as a potential training ground for teachers to eventually replace retiring teachers at E.S.C.H.S.

The Attawapiskat Project got underway in the fall of 1991. The principal coordinated the initiative and made numerous trips

to the pilot school. E.S.C.H.S. teachers were expected to collaborate in the preparation of resources to be sent to Attawapiskat, and to be available for consultation with the teachers by phone or when the teachers visited E.S.C.H.S. They were encouraged to participate in on-site assistance visits (2-3 days a visit, access by small plane). Some went several times. Some went once. Some did not go.

The Attawapiskat Project evolved more quickly than anticipated. Within a few months the school expanded to 55 students covering Grades 9 to 11, additional teachers were hired, and the funding for dissemination support was exhausted. The time required of E.S.C.H.S. teachers put stress on the program at E.S.C.H.S. Although teachers who visited the pilot school found the experience professionally rewarding and challenging, they were quite concerned about spending too much time away and losing touch with the progress of their students.

Attawapiskat is eclipsing some of the needs of the program here. We have to be careful that this school remains number one. Pilot projects and involvement with satellite schools in Native communities take people out. Everytime you take a person out it hurts. but also those teachers learn and grow.

ESCHS Administrator Comment, 1992

Whether they limited their involvement to preparing resources and consulting from E.S.C.H.S., or participated in site visits, the teachers recognized that the time and energy devoted to helping the pilot school was depleting the time and energy they might spend on refining the program at E.S.C.H.S.

Early in 1992 the central administration and board decided to undertake a sustained effort to disseminate Project Excellence.

The principal was seconded to the board for a year and a half to coordinate dissemination efforts to other schools, and to develop proposals for external funding. He drew up a proposal to create a training centre to assist schools in setting up their own schools modelled on Project Excellence. The centre was to be staffed by a small group of E.S.C.H.S. teachers who would be seconded full time for one or two years to work in the centre, and who would be replaced by full time teachers at E.S.C.H.S., in that way reducing the drain on resources at the home school. E.S.C.H.S. would remain a demonstration site, but the staff would not be intensively involved in providing training and curriculum assistance to participating schools.

At the time of our followup study, the school had pulled back from intensive involvement with the Attawapiskat Project. Funding for further trips was depleted, though the board was renegotiating for additional funds. The new administration was more inclined to focus staff resources on refining the system at E.S.C.H.S. than on disseminating it to other schools, so long as dissemination meant diverting staff away from their responsibilities to the school and students. Exploration of possible funding sources for the proposal to create a Project Excellence training centre was in process, but nothing had developed. The staff were split on what direction they should be pursuing: dissemination and support for new projects, or refinement and solidification of their own program at home.

Conclusion: Implications for Restructuring

So what does the story of Project Excellence, its implementation, institutionalization, and search for renewal, say to us about the current restructuring initiatives in North American education? We have organized our thoughts about the implications and significance of this case into the five themes, as follows.

(1) The scope of outcomes from curriculum restructuring. Some might argue that the curriculum restructuring effort in Project Excellence did not go far enough, that it altered the way students were learning and improved the effectiveness of their learning, without substantially changing what they were learning. On the other hand, the supposed curriculum needs in contemporary schools cited in the restructuring literature are many -- e.g., focus on acquisition of complex thinking and problem solving skills, development of responsibility and skills for independent learning, need for more active and relevant learning activities, development of skills to work in groups, greater curriculum integration, ability to utilize new technologies in learning and the workplace. The magnitude of the transformation in the form of curriculum, the approach to learning, the teacher role and relationship to students, the student role as learner, and teacher-parent relationships in Project Excellence certainly matches or exceeds the degree of change in most restructuring projects that include a specific focus on curriculum and instruction. What the Project Excellence initiative suggests is that it is impractical to expect any restructuring effort to simultaneously accomplish all the goals

for curriculum and learning that might be desired. The teachers in Project Excellence were able through their restructuring initiative to accomplish the goal of making students into more independent learners, while simultaneously improving student performance and outcomes in the framework of traditional curriculum objectives. While there remained other potential areas for curriculum improvement (e.g., subject integration, complex thinking skills, cooperative learning), it is unreasonable to suppose that each new focus for improvement would require another round of restructuring. If we are able to restructure a system once with demonstrably positive results, any further changes will have to be tackled incrementally as in the past, and would have to be adapted to the new structures in order to preserve the gains already made.

(2) Equity of impact in restructured schools. The teachers in Project Excellence were convinced that the majority of students were learning more and learning better than in a traditional school. At the same time, they recognized that the system in its present form was not working for all students, just as the traditional school did not work for all students. What to do? One option envisioned in the restructuring literature is to create more choices in a school system -- a variety of schools able to meet the needs, interests, and learning styles of different groups of students. This option was provided to a certain extent in Cochrane. Students were offered the choice of attending Project Excellence at E.S.C.H.S. or a more traditional classroom-based semestered secondary school in a neighboring community. There are

dangers in this approach, however, because it allows teachers to adopt the position that the learning system in their school is only for students that "fit" the system. The teachers in Project Excellence were at the point of wondering whether to give up on certain groups of students, or to renew their efforts to reach and teach those students. The ethos of the effective schools movement of the 1980s concerning the responsibility of teachers to all students should not be dismissed in the context of restructuring. A "restructured school" is not necessarily an "effective school". Restructured schools will need to continually monitor student impact, and to make necessary refinements and adaptations to ensure that they "work" for as many students as possible.

(3) Site-based management, schools of choice, and institutional isolation. What if the visions of restructuring pertaining to site-based management and schools of choice are carried out on a widespread basis, with individual schools determining their own needs and setting their own agendas for change and improvement (albeit in relation to common accountability standards)? The story of Project Excellence provides an important reminder of the potential institutional isolation that can result when schools embark on their own "special" visions of education (Miles, 1981). For a while the staff at E.S.C.H.S. were able to thrive on their own creative energy and ideas. There comes a time, however, when people start running out of ideas on their own. They need access to relevant ideas and expertise outside the school to stimulate and extend their own thinking. The teachers in Project

Excellence came to believe that their school, their curriculum, and their teaching roles were so unique that most professional development opportunities through the Ministry of Education, boards, professional associations, and faculties of education were irrelevant or did not "fit" their approach and needs. For example, how do you implement cooperative group learning in a system without classrooms where each student progresses at his or her own rate and many courses have fewer than 10 students enrolled at any given time? More than professional experts, however, the teachers yearned for contact with colleagues in other schools implementing similar systems of education. As restructured schools evolve, care will have to be taken to help ensure that schools do not become isolated in their special visions. Proactive networking among schools trying out similar approaches will be important. Dissemination strategies to other schools will also be important. Increasingly, restructured schools with unique visions for curriculum and instruction may find that they will have to take on greater responsibility for mutual adaptation of interesting ideas, rather than rejecting them out-of-hand because they do not fit.

(4) Training teachers for restructured schools. Teacher training represents a critical dimension of potential institutional isolation. Project Excellence was unique in that most of the original staff stayed with the school, and declining enrolment limited replacement of those that left. Upcoming retirements and the absence of a pool of trained replacements were a looming reality. If restructured schools do become more unique as a result

of site-based management and parental choice, it may become increasingly difficult to find beginning or experienced teachers who are prepared to teach in these schools. Faculties of education prepare teachers to teach in traditional school settings, not in unique school settings, and that is unlikely to change in the near future. Restructured schools may find that they need to develop induction programs for incoming teachers (and supply teachers) on their own or in partnership with regular teacher training institutions. Restructuring proponents argue that for restructuring to succeed the interrelated network of institutions, policies, and practices that make up the education system will have to change. Project Excellence presents a good example of the difficulties that a restructured school can experience maintaining its position in the institutional network when that network does not change. The idea of restructuring, however, is change from the bottom up, not from the top down. Restructured schools will have to take the political initiative to challenge and push the system around them to change in order to permit them to survive and thrive in the long run.

(5) Institutionalizing the capacity for renewal. A major aim of restructuring initiatives is to create schools that are oriented towards and have the organizational capacity to engage in continuous change and improvement. This is expected to occur through new governance structures that put more decision-making authority in the hands of teachers and parents, and by using a bottom up rationale for policy making and resource allocation at

the system level. The case study of Project Excellence illustrates a situation where programmatic restructuring occurred, and where the new programmatic structure became institutionalized. Organizational restructuring leading to norms of continuous change and improvement, however, did not occur. Teacher empowerment happened in the initial years as a temporary strategy to help get the school in place. New teacher-parent relationships were built into the system, but structures for organized input from parents were only introduced on a temporary basis, as well. Within five years, the innovative collaborative structures for teacher and parent participation in school decision-making had been dismantled, and the school was being managed according to traditional conventions (top-down initiation, laissez-faire implementation). At Project Excellence, the school and staff appeared to be on the verge of renewal. Renewal, however, was being approached from a base of routinization, balkanized administrator and teacher opinions, and threats to survival of the school, rather than flowing naturally from a school culture and organization powered by teachers, administrators, and parents working in concert with one another to refine and renew a common vision for the future. The case highlights the fact that governance structures associated with restructuring will have to survive the organizational passages, cycles, and conditions indicative of institutionalization before the long term outcomes of restructuring can be known. If these structures do, in fact, stimulate change and improvement as hypothesized, then the prospects for natural continuous renewal are contingent upon their institutionalization.

BIBLIOGRAPHY

- Anderson, S. (1992). Principals management style and the implementation of multiple innovations. School Effectiveness and School Improvement, forthcoming.
- Anderson, S., Stiegelbauer, S., Gérin-Lajoie, D., Partlow, H., & Cummins, A. (1989). Project Excellence: A Case Study of a Student-Centred Secondary School. Toronto: Ministry of Education Province of Ontario.
- Berman, P. (1981). Toward an implementation paradigm. In R. Lehning & M. Kane (Eds), Improving Schools: Using What we Know. Beverly Hills: Sage Publications, 253-286.
- Berman, P. & McLaughlin, M. (1976). Implementation of educational innovation. Educational Forum 40(3), 345-370.
- Corbett, H., Dawson, J., & Firestone, W. (1984). School context and school change. New York, N.Y.: Teachers College Press.
- Crandall, D., Eiseman, J., & Louis, K.S. (1986). Strategic planning issues that bear on the success of school improvement efforts. Educational Administration Quarterly, 22(3), 21-53.
- David, J. (1989). Restructuring in progress: Lessons from pioneering districts. Washington, DC: National Governors' Association.
- Fullan, M. (1991). The New Meaning of Educational Change. Toronto: OISE Press.
- Fullan, M. (1985). Change processes and strategies at the local level. The Elementary School Journal 85(3), 391-421.
- Fullan, M. & Pomfrett, A. (1977). Research on curriculum and instruction implementation. Review of Educational Research 47(1), 335-397.
- Hall, G. & Hord, S. (1987). Change in Schools: Facilitating the Process. Albany, N.Y.: State University of New York Press.
- Hall, G. & Loucks, S. A developmental model for determining whether the treatment is actually implemented. American Educational Research Journal 14(3), 263-276.
- Huberman, M. & Miles, M. (1984). Innovation Up Close: How School Improvement Works. New York: Plenum.
- Miles, M. (1981). Mapping the common properties of schools. In R. Lehning & M. Kane (Eds), Improving Schools: Using What we Know. Beverly Hills: Sage Publications, 42-114.
- Miles, M. (1983). Unraveling the mystery of institutionalization. Educational Leadership, November, 14-19.
- Murphy, J., Evertson, C., & Radnofsky, M. (1991). Restructuring schools: Fourteen elementary and secondary teachers' perspectives on reform. The Elementary School Journal, 92(2), 135-148.
- Newman, F. (1991). Linking restructuring to authentic student achievement. Phi Delta Kappan, February, 458-463.
- Trump, L.

FIGURE 1
STATUS OF PROJECT EXCELLENCE INSTITUTIONALIZATION

INDICATORS OF INSTITUTIONALIZATION	1987/88	1992
<u>Supporting Conditions</u>		
Is core (vs. peripheral) application	present	present
Operating on a regular, daily basis	present	present
Provides benefits, payoffs to users (teachers, students)	present	present
Competing practices eliminated	<u>partially</u>	<u>integrated</u>
Receives support from:		
administration	present	present
teachers	present	present
clients (students, parents)	<u>partially</u>	present
Other: external funding, laws, PD, etc.	<u>partially</u>	<u>partially</u>
<u>Passage Completion</u>		
Goes from soft to hard money	present	present
Job description becomes standard	present	present
Skills required are included in formal training program	<u>absent</u>	<u>absent</u>
Organizational status is established/ part of regulations	present	present
Routines established for supply & maintenance	present	present
<u>Cycle Survival</u>		
Survives annual budget cycles	present	present
Survives departure or arrival of new personnel	<u>uncertain</u>	<u>uncertain</u>
Achieves widespread use in organization	present	present
Survives equipment/materials turnover or loss	present	present